Amendments to the Claims

1-27 (Canceled)

28. (Currently amended) A method for lining a stent, comprising:

(a) providing a catheter assembly comprising a balloon at least a portion of which is coated with a hydrogel, wherein said hydrogel is crosslinked, wherein an ~~expandsible~~ expansible stent is mounted on said balloon in a contracted condition,

(b) introducing said assembly into a body lumen, and

(c) inflating said balloon to lodge said stent in said body lumen and to release said hydrogel from said coated portion to an inner surface of said stent as a lining.

29. (Original) The method of claim 28, wherein said body lumen is a blood vessel.

30. (Original) The method of claim 29, wherein said vessel is an occluded artery.

31. (Canceled)

32. (Original) The method of claim 28 wherein said hydrogel is selected from the group consisting of a polyacid, cellulosic polymer, collagen, gelatin, albumin, alginate, poly-2-hydroxymethyl methyl acrylate (HEMA), polyvinylpyrrolidone, maleic anhydride polymer, polyamide, polyacrylamide, polyvinyl alcohol, polyethylene glycol, polyethylene oxide, and polysaccharide.

33. (Currently amended) The method of claim 28 wherein said hydrogel is poly (~~arcylic~~ acrylic acid).

34. (Currently amended) The method of claim 28 wherein said poly (~~arcylic~~ acrylic acid) is cross-linked.

35. (Original) The method of claim 28 wherein said hydrogel is hyaluronic acid.

36. (Original) The method of claim 35 wherein said hyaluronic acid is cross-linked.

37. (Original) The method of claim 28 wherein said hydrogel is derivatized albumin.

38. (Currently amended) The method of claim 28 wherein said hydrogel an ~~arcylic~~ acrylic acid.

39. (Original) The method of claim 28 wherein said hydrogel is polyanhydride.

40. (Original) The method of claim 28 wherein said catheter further comprises a sheath for covering at least a portion of said balloon which is coated with said hydrogel.

41. (Original) The method of claim 40, comprising removing said sheath prior to inflating said balloon.

42. (Original) The method of claim 28 wherein said stent is a permeable stent.

43. (Original) The method of claim 28 wherein said hydrogel comprises a therapeutic agent.

44. (Original) The method of claim 43 wherein said therapeutic agent is an anti-thrombogenic agent.

45. (Original) The method of claim 44 wherein said anti-thrombogenic agent is selected from the group consisting of heparin, PPACK, enoxaprin, aspirin, and hirudin.

46. (Original) The method of claim 43 wherein the therapeutic agent is a thrombolytic agent.

47. (Original) The method of claim 46 wherein the thrombolytic agent is selected from the group consisting of urokinase, streptokinase, and tissue plasminogen activator.

48. (Original) The method of claim 28 wherein said catheter comprises a plurality of delivery ports.

49. (Original) The method of claim 48, wherein said delivery port is located proximal to said balloon, upstream of said stent with respect to blood flow, such that hydrogel administered via said delivery port is carried by blood flow to said inner surface of said stent.

50. (Currently amended) A method of lining a stent positioned in a body lumen, comprising:

(a) providing a catheter comprising a balloon at least a portion of which is coated with a hydrogel, wherein said hydrogel is selected from the group consisting of a polyacid, cellulosic polymer, collagen, gelatin, albumin, alginate, poly-2-hydroxymethyl methyl acrylate (HEMA), polyvinylpyrrolidone, maleic anhydride polymer, polyamide, polyacrylamide, polyvinyl alcohol, polyethylene glycol, polyethylene oxide, and polysaccharide,

(b) introducing said catheter into said body lumen,

(c) advancing said catheter in said body lumen until said coated portion is positioned proximate to an inner surface of said stent; and

(d) inflating said balloon to release said hydrogel from said coated portion to said inner surface of said stent as a lining.

51. (Original) The method of claim 50, wherein said body lumen is a blood vessel.

52. (Original) The method of claim 51, wherein said vessel is an occluded artery.

53. (Original) The method of claim 50 wherein said hydrogel is crosslinked.

54. (Canceled)

55. (Currently amended) The method of claim 50 wherein said hydrogel is poly (~~arcylic~~ acrylic acid).

56. (Currently amended) The method of claim 50 wherein said poly (~~arcylic~~ acrylic acid) is cross-linked.

57. (Original) The method of claim 50 wherein said hydrogel is hyaluronic acid.

58. (Original) The method of claim 57 wherein said hyaluronic acid is cross-linked.

59. (Original) The method of claim 50 wherein said hydrogel is derivatized albumin.

60. (Currently amended) The method of claim 50 wherein said hydrogel an ~~arcylic~~ acrylic acid.

61. (Original) The method of claim 50 wherein said hydrogel is polyanhydride.

62. (Original) The method of claim 50 wherein said catheter further comprises a sheath for covering at least a portion of said balloon which is coated with said hydrogel.

63. (Original) The method of claim 62, comprising removing said sheath prior to inflating said balloon.

64. (Original) The method of claim 50 wherein said stent is a permeable stent.

65. (Original) The method of claim 50 wherein said hydrogel comprises a therapeutic agent.

66. (Original) The method of claim 65 wherein said therapeutic agent is an anti-thrombogenic agent.

67. (Original) The method of claim 66 wherein said anti-thrombogenic agent is selected from the group consisting of heparin, PPACK, enoxaprin, aspirin, and hirudin.

68. (Original) The method of claim 65 wherein the therapeutic agent is a thrombolytic agent.

69. (Original) The method of claim 68 wherein the thrombolytic agent is selected from the group consisting of urokinase, streptokinase, and tissue plasminogen activator.

70. (Original) The method of claim 50 wherein said catheter comprises a plurality of delivery ports.

71. (Original) The method of claim 70, wherein said delivery port is located proximal to said balloon, upstream of said stent with respect to blood flow, such that hydrogel administered via said delivery port is carried by blood flow to said inner surface of said stent.

72. (Currently amended) A method of lining a stent positioned in a body lumen, comprising:

(a) providing a catheter comprising a balloon and a delivery port, wherein said balloon comprises a first layer and a second outer ~~aperatured~~ apertured layer overlying said delivery port,

(b) introducing said catheter into said body lumen,

(c) advancing said catheter in said body lumen until said outer ~~aperatured~~ apertured layer is positioned proximate to an inner surface of said stent;

(d) delivering a hydrogel into a space between said first layer and said second outer ~~aperatured~~ apertured layer, wherein said hydrogel is selected from the group consisting of a polyacid, cellulosic polymer, collagen, gelatin, albumin, alginate, poly-2-hydroxyethyl methyl acrylate (HEMA), polyvinylpyrrolidone, maleic anhydride polymer, polyamide, polyacrylamide, polyvinyl alcohol, polyethylene glycol, polyethylene oxide, and polysaccharide; and

(e) inflating said balloon to press said hydrogel through said outer ~~aperatured~~ apertured layer, wherein said hydrogel is deposited on said inner surface of said stent as a lining.

73. (Original) The method of claim 72, wherein said body lumen is a blood vessel.

74. (Original) The method of claim 73, wherein said vessel is an occluded artery.

75. (Original) The method of claim 72 wherein said hydrogel is crosslinked.

76. (Canceled)

77. (Currently amended) The method of claim 72 wherein said hydrogel is poly (~~arcylic~~ acrylic acid).

78. (Currently amended) The method of claim 72 wherein said poly (~~arcylic~~ acrylic acid) is cross-linked.

79. (Original) The method of claim 72 wherein said hydrogel is hyaluronic acid.

80. (Original) The method of claim 79 wherein said hyaluronic acid is cross-linked.

81. (Original) The method of claim 72 wherein said hydrogel is derivatized albumin.

82. (Currently amended) The method of claim 72 wherein said hydrogel is an ~~arcylic~~ acrylic acid.

83. (Original) The method of claim 72 wherein said hydrogel is polyanhydride.

84. (Original) The method of claim 72 wherein said catheter further comprises a sheath for covering at least a portion of said balloon which is coated with said hydrogel.

85. (Original) The method of claim 84, comprising removing said sheath prior to inflating said balloon.

86. (Original) The method of claim 72 wherein said stent is a permeable stent.

87. (Original) The method of claim 72 wherein said hydrogel comprises a therapeutic agent.

88. (Original) The method of claim 87 wherein said therapeutic agent is an anti-thrombogenic agent.

89. (Original) The method of claim 88 wherein said anti-thrombogenic agent is selected from the group consisting of heparin, PPACK, enoxaprin, aspirin, and hirudin.

90. (Original) The method of claim 87 wherein the therapeutic agent is a thrombolytic agent.

91. (Original) The method of claim 90 wherein the thrombolytic agent is selected from the group consisting of urokinase, streptokinase, and tissue plasminogen activator.

92. (Original) The method of claim 72 wherein said catheter comprises a plurality of said delivery ports.

93. (Original) The method of claim 92, wherein said delivery port is located proximal to said balloon, upstream of said stent with respect to blood flow, such that hydrogel administered via said delivery port is carried by blood flow to said inner surface of said stent.

94. (Currently amended) A method of selectively lining a permeable stent to treat an aneurism, comprising:

(a) providing a catheter comprising a balloon at least a portion of which is coated with a hydrogel, wherein said hydrogel is selected from the group consisting of a polyacid, cellulosic polymer, collagen, gelatin, albumin, alginate, poly-2-hydroxyethyl methyl acrylate (HEMA), polyvinylpyrrolidone, maleic anhydride polymer, polyamide, polyacrylamide, polyvinyl alcohol, polyethylene glycol, polyethylene oxide, and polysaccharide;

(b) introducing said catheter into an aneurismal blood vessel comprising said permeable stent in the region of said aneurism,

(c) advancing said catheter in said vessel until said coated portion is positioned proximate to said aneurism; and

(d) inflating said balloon to release said hydrogel from said coated portion to an inner surface of said stent proximate to said aneurism to selectively line said stent, wherein said hydrogel renders said surface impermeable thereby reducing blood flow into said aneurism.

95. (Original) The method of claim 94 wherein said hydrogel is crosslinked.

96. (Canceled)

97. (Currently amended) The method of claim 94 wherein said hydrogel is poly (~~arcylic~~ acrylic acid).

98. (Currently amended) The method of claim 97 wherein said poly (~~arcylic~~ acrylic acid) is cross-linked.

99. (Original) The method of claim 94 wherein said hydrogel is hyaluronic acid.

100. (Original) The method of claim 99 wherein said hyaluronic acid is cross-linked.

101. (Original) The method of claim 94 wherein said hydrogel is derivatized albumin.

102. (Currently amended) The method of claim 94 wherein said hydrogel an ~~arcylic~~ acrylic acid.

103. (Original) The method of claim 94 wherein said hydrogel is polyanhydride.

104. (Original) The method of claim 94 wherein said catheter further comprises a sheath for covering at least a portion of said balloon which is coated with said hydrogel.

105. (Original) The method of claim 104, comprising removing said sheath prior to inflating said balloon.

106. (Original) The method of claim 94 wherein said hydrogel comprises a therapeutic agent.

107. (Original) The method of claim 106 wherein said therapeutic agent is an anti-thrombogenic agent.

108. (Original) The method of claim 107 wherein said anti-thrombogenic agent is selected from the group consisting of heparin, PPACK, enoxaprin, aspirin, and hirudin.

109. (Original) The method of claim 106 wherein the therapeutic agent is a thrombolytic agent.

110. (Original) The method of claim 109 wherein the thrombolytic agent is selected from the group consisting of urokinase, streptokinase, and tissue plasminogen activator.

111. (Original) The method of claim 94 wherein said catheter comprises a plurality of delivery ports.

112. (Original) The method of claim 111, wherein said delivery port is located proximal to said balloon, upstream of said stent with respect to blood flow, such that hydrogel administered via said delivery port is carried by blood flow to said inner surface of said stent.